ABSTRACT

In a multiple input ESD protection structure, the inputs are isolated from the substrate by highly doped regions of opposite polarity to the input regions. Dual polarity is achieved by providing a symmetrical structure with n+ and p+ regions forming each dual polarity input. The inputs are formed in a p-well which, in turn, is formed in a n-well. Each dual polarity input is isolated by a PBL under the p-well, and a NISO underneath the n-well. An isolation ring separates and surrounds the inputs. The isolation ring comprises a p+ ring or a p+ region, n+ region, and p+ region formed into adjacent rings.